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OLIVER HEATH
DESIGN

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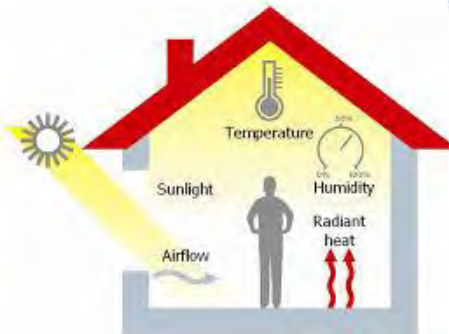
Biophilia and the built environment

Building a better world together

Dr Flavie Lowres



What defines a great indoor environment?



What defines a great indoor environment?







Health, Wellbeing & Productivity in Offices

The next chapter for green building



- Highly urbanised population: 66% of developed world will be urbanised by 2050
- We spend ~90% of our time indoors
- WHO forecast that stress related illness primary cause of sickness by 2020
- In 2017/18 stress, depression or anxiety accounted for 44% of all work-related ill health cases and 57% of all working days lost due to ill health.
- In UK: **15.4 million** working days lost due to work-related stress, depression or anxiety in 2017/18

Health and Safety
Executive

Annual Statistics

Published 31st October 2018

Work related stress depression or anxiety statistics in Great Britain, 2018

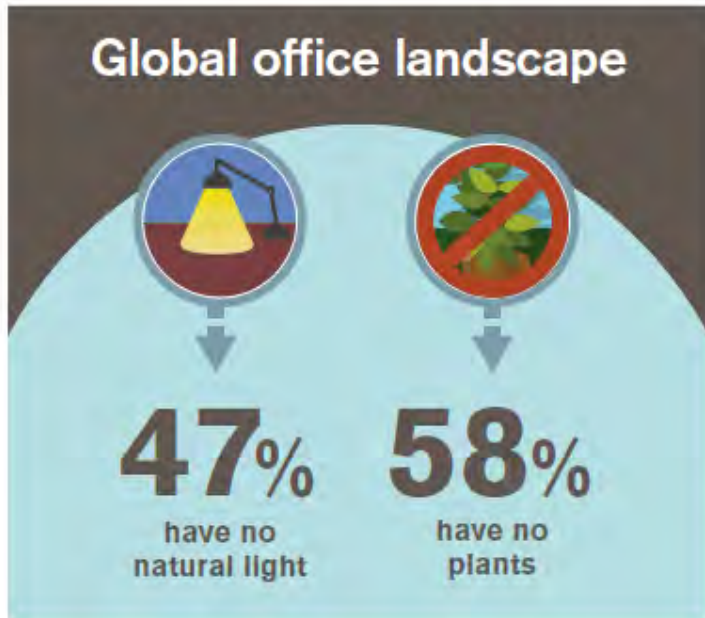
HUMAN SPACES:

The Global Impact of Biophilic Design in the Workplace

Should a "work" space be any different from the other spaces people inhabit? The question is becoming increasingly relevant as the world's population grows and the demand for space increases. The world's population is projected to reach 9.7 billion by 2050, and the demand for space is expected to increase significantly. The world's population is projected to reach 9.7 billion by 2050, and the demand for space is expected to increase significantly. The world's population is projected to reach 9.7 billion by 2050, and the demand for space is expected to increase significantly.

Human Spaces report: “The global impact of biophilic design in the workplace”

Results based on 7600 employees across 16 countries



66% of workers reported not to have access to natural light in UK!

HUMAN SPACES:

The Global Impact of Biophilic Design in the Workplace

Human Spaces is a global leader in providing the world's most innovative and sustainable workplace solutions. Our research and data-driven insights are the foundation for a global movement to create healthier, more productive, and more sustainable workplaces. We are proud to be a global leader in providing the world's most innovative and sustainable workplace solutions. We are proud to be a global leader in providing the world's most innovative and sustainable workplace solutions.

66%

Drop in performance when exposed to distracting noise.

4%

Reduction in performance at cooler temperatures.

6%

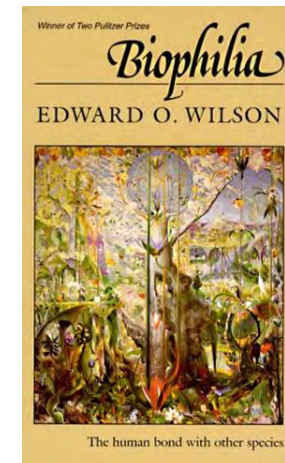
Reduction in performance at warmer temperatures.

46 mins

More sleep per night on average for office workers with windows.

- Biophilia hypothesis, idea that humans possess an innate tendency to seek connections with nature and other forms of life.
- German-born American psychoanalyst **Erich Fromm** in *The Anatomy of Human Destructiveness* (1973)
- Harvard Professor of Biology, multiple Pulitzer prize winning author and world authority on social insects **Edward O. Wilson** in his work *Biophilia* (1984), which proposed

Our genetic connection to nature





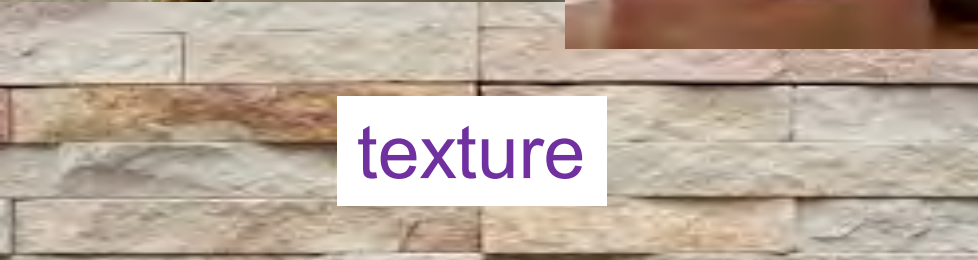
sound



nature



aesthetic



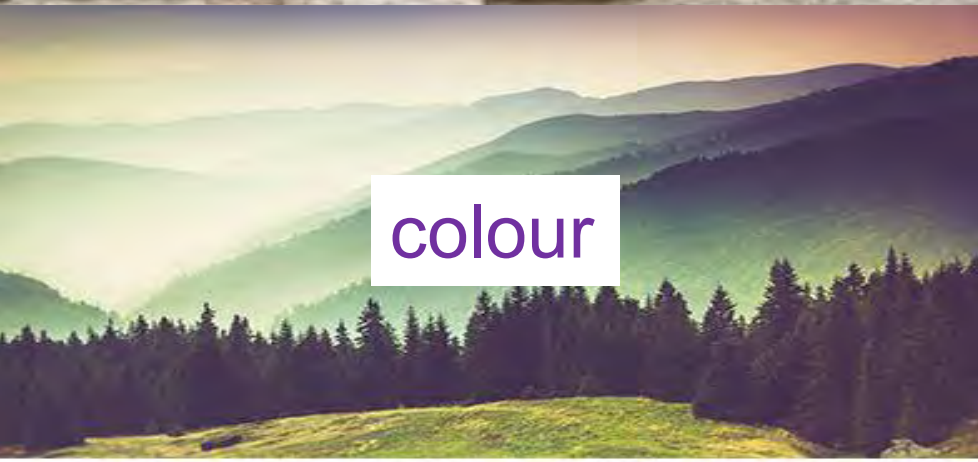
texture



light



view



colour



air



diversity



WGBC report – Health and wellbeing & productivity in offices

- 15% increase in reported levels of well-being
- 6% more productive
- 15% more creative
- reduction in absenteeism



“A pyramid of benefits” to the student, the staff, the education establishment and the economy on the whole:

- children learn 25% faster when natural light is present,
- classrooms with plants see improved performance in spelling, mathematics and science subjects of 10 to 14%
- green walls improve acoustics and can reduce CO2 levels
- reduced absenteeism of 3.5 days per year per pupil

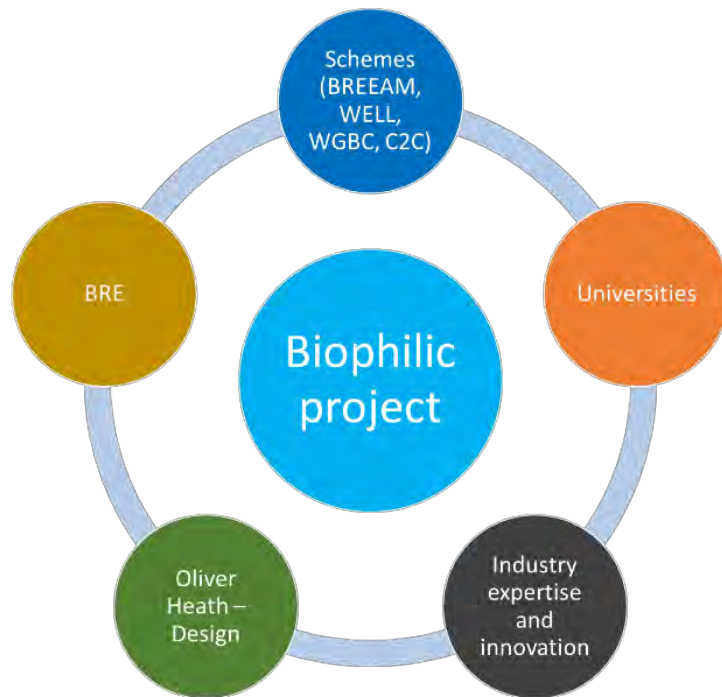


Roger Ulrich (1984) demonstrated benefits to patients recovering from gallbladder surgery in rooms with views onto nature:

- patients recovered 8.5% faster
- they required 22% less medication
- patients felt less pain



Grow and deepen the evidence base for health, wellbeing and productivity impacts of restorative office refurbishment



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Project Team



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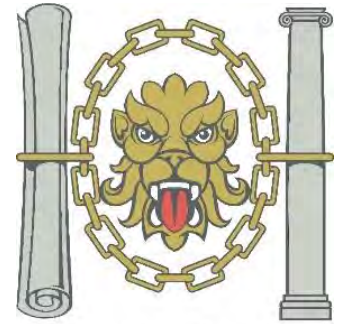
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Thank you

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